Claims

1. A coating for a utensil or vessel for cooking food products, characterized in that it consists of an aluminum-based alloy containing more than 80% by weight of one or more quasicrystalline or approximant phases, having the composition $Al_a(Fe_{1-x}X_x)_b(Cr_{1-y}Y_y)_cZ_zJ_j$ in which:

- X represents one or more elements isoelectronic with Fe, chosen from Ru and Os;
- Y represents one or more elements isoelectronic with Cr, chosen from Mo and W;
- Z is an element or a mixture of elements chosen from Ti, Zr, Hf, V, Nb, Ta, Mn, Re, Rh, Ni and Pd;
- J represents the inevitable impurities other than copper;
- $a + b + c + z = 100$;
- $5 \leq b \leq 15$; $10 \leq c \leq 29$; $0 \leq z \leq 10$;
- $xb \leq 2$;
- $yc \leq 2$; and
- $j<1$.

2. The coating as claimed in claim 1, characterized in that the quasicrystalline alloy has an atomic composition $Al_aFe_bCr_cJ_j$, in which:

- $a + b + c + j = 100$; and
- $5 \leq b \leq 15$; $10 \leq c \leq 29$; $j<1$.

3. A utensil or vessel for cooking food products, characterized in that the surface of said utensil or vessel that is in contact with the food products has a coating as claimed in either of claims 1 or 2.